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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/813,215
Filing Date: March 31, 2004
Appellant(s): FURUKAWA ET AL.

Christopher M. Tobin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/04/2010 appealing from the Office action mailed 11/13/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 18, 23-31, 33-42, 44 and 45 are rejected and pending in the application.

(4) Status of Amendments after Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

6009236	Mishima et al.	12-1999
7058208	Suzuki	6-2006

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18, 23-31, 33-42, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mishima et al (6,009,236) and further in view of Suzuki (7,058,208).

Regarding claim 18, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium, the reproducing device comprising:

- a controller adapted to set reproduction speeds of the video data (Col 37, line 36 “special playback is performed”), said reproduction speeds including a normal playback and a high-speed playback, said high-speed playback being at a higher speed than said normal playback (Col 29, lines 54-55 “a 15 times speed special playback picture can be obtained”);
- a drive adapted to read out said video data from the information recording medium (Col 27, lines 53-55 “video information read from the recording medium is inputted from an input terminal 20 to a demodulator 21”), said video data including main track data being read out during said normal playback and low resolution data being read out during said high-speed playback (Col 20, lines 39-43 “At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution”); and
- a decoder adapted to generate an output image from said video data, said output image being viewable on a screen (Fig. 10, item 782 “Video Signal Decoder” and item 784 “Monitor”),
- wherein, during said normal playback, said screen displays a frame of said main track data (Col 20, lines 22-28 “At the time of the normal playback, the coded data of the low resolution component and the coded data of the high resolution component which is the differential component between the low resolution portion and the data before being thinned into a low resolution are

synthesized so that a picture with a complete resolution component can be decoded"),

- wherein, during said high-speed playback, said screen is divided into areas (Col 37, lines 44-47 "the P4 picture is played back in the area 1, the P3 picture is played back in the area 2, the P2 picture is played back in the area 3, and the P1 picture is played back in the area 4 and the I picture in the area 5"), said areas of said screen partially displaying different frames of said low resolution data (Col 20, lines 39-43 "At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution" and Figs 26A-26D), and
- wherein, at a transition from said high-speed playback to said normal playback (Col 51, lines 42-43 "normal continuous playback or the like is inputted to the mode switcher 76 from the microcomputer"), but do not explicitly disclose a calculation for the acceleration and deceleration.

Suzuki teaches calculating an acceleration in accordance with time required to read out and decode said main track data (Col 7, lines 2-7 "the data is intermittently read out from the disc 113 by the predetermined amount in the normal reproduction mode. At the time of search reproduction, the data is continuously read out from the magneto-optical disc 113. In this manner, the data is reproduced at a rate several times higher than the rate in the normal reproduction mode") so as to perform deceleration at a deceleration corresponding to said calculated acceleration (Col 6, lines 42-50 "at the

time of normal reproduction, the CPU 122 rearranges, in the order shown by reference numeral 301 in FIG. 3, the reproduced data decoded in the order indicated by reference numeral 302 in FIG. 3 and stored in the memory 205, and outputs the rearranged data. Thus, the order of reproduced image data is changed by using the memory 205 and, accordingly, the memory 205 is capable of storing several frames (ten frames in this embodiment) of decoded image data").

As taught by Suzuki, calculating an acceleration factor allows the reproducing device to determine the appropriate data reading rate for the high-speed reproduction, and to return to a normal reading rate when high-speed reproduction is completed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mishima et al in order to include a calculation of acceleration factor and to use that calculation for accelerated and normal playback transitions.

Regarding claim 23, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium, the reproducing device comprising:

- a controller adapted to set a reproduction speed of the video data (Col 37, line 36 "special playback is performed"), said reproduction speed during a high-speed playback being higher than said reproduction speed during a normal playback (Col 29, lines 54-55 "a 15 times speed special playback picture can be obtained");

- a drive adapted to read out said video data from the information recording medium (Col 27, lines 53-55 “video information read from the recording medium is inputted from an input terminal 20 to a demodulator 21”), said video data including main track data being read out during said normal playback and low resolution data being read out during said high-speed playback (Col 20, lines 39-43 “At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution”); and
- a decoder adapted to generate an output image from said video data, said output image being viewable on a screen (Col 20, lines 22-28 “At the time of the normal playback, the coded data of the low resolution component and the coded data of the high resolution component which is the differential component between the low resolution portion and the data before being thinned into a low resolution are synthesized so that a picture with a complete resolution component can be decoded”),

Mishima et al also disclose wherein, at a transition from said normal playback to said high-speed playback, an acceleration in accordance with time required to read out and decode said low resolution data is calculated so as to perform acceleration at said calculated acceleration (Col 16, lines 60-64 “at the time of the special playback, the data to be accessed decreases so that a smooth special

playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback").

Mishima et al also disclose the screen divided into a number of areas (Col 37, lines 44-47 'the P4 picture is played back in the area 1, the P3 picture is played back in the area 2, the P2 picture is played back in the area 3, and the P1 picture is played back in the area 4 and the I picture in the area 5"), but does not explicitly disclose the number during high-speed playback being variable in accordance with said reproduction speed.

Suzuki teaches a reproducing device adapted to play back video data recorded on an information recording medium wherein the screen is divided into a number of areas during high-speed playback, that number being variable in accordance with the reproduction speed (Col 9, lines 21-24 "the ability of the recording and reproducing system and the memory capacity may be changed as desired to perform search reproduction at a speed other than the above-mentioned speed" and Col 9, lines 28-32 "each of successive ten frames stored in the memory is divided into ten regions, and respective portions of the ten frames of reproduced image data are combined to form one frame of image data for tenfold-speed search").

As taught by Suzuki, a screen being divided into a number of areas during high-speed playback, the number being variable in accordance with the reproduction speed, is well known, and provides the user with a visual indication of both the

frames being played at high speed and of the rate of reproduction, and provides a smoothly moving search image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mishima et al in order to include a variable number of areas being displayed during high-speed reproduction in accordance with the reproduction speed.

Regarding claim 24, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein each of said areas partially displays different frames of said low resolution data (Col 37, lines 44-47 “the P4 picture is played back in the area 1, the P3 picture is played back in the area 2, the P2 picture is played back in the area 3, and the P1 picture is played back in the area 4 and the I picture in the area 5”).

Regarding claim 25, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein said screen displays a frame of said main track data during said normal playback (Col 20, lines 22-28 “At the time of the normal playback, the coded data of the low resolution component and the coded data of the high resolution component which is the differential component between the low resolution portion and the data before being thinned into a low resolution are synthesized so that a picture with a complete resolution component can be decoded”).

Regarding claim 26, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein said

reproduction speed is set at a predetermined acceleration (Col 16, lines 60-64 "at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback").

Regarding claim 27, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein said video data are read out at said reproduction speed (Col 20 lines 22-27 "At the time of the normal playback, the coded data of the low resolution component and the coded data of the high resolution component which is the differential component between the low resolution portion and the data before being thinned into a low resolution are synthesized so that a picture with a complete resolution component can be decoded" and lines 39-43 "At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution" and Col 16, lines 60-64 "at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback").

Regarding claim 28, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein a time period to decode said low resolution data is shorter than a time period to decode said main track data (Col 55, lines 25-29 "when only the low resolution component is arranged in summary at the front of the GOP, the ratio of the L component occupying

the whole largely reduces so that an allowance can be made in the reading speed from the medium so that the skip search can be easily realized").

Regarding claim 29, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein said main track data and said low resolution data are on said information recording medium (Col 20 lines 22-27 "At the time of the normal playback, the coded data of the low resolution component and the coded data of the high resolution component which is the differential component between the low resolution portion and the data before being thinned into a low resolution are synthesized so that a picture with a complete resolution component can be decoded" and lines 39-43 "At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution" and Col 1, lines 14-16 "a digital video signal record and playback device for recording and playing back on a medium such as an optical disc").

Regarding claim 30, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein said main track data and said low resolution data are intermittently recorded on a physically same track of said information recording medium (Col 55, lines 11-20 "FIG. 65 is a view showing an example of the result of data constitution… In the sequence c, symbol C denotes a component coded by a rough quantization, and A a residual component by the rough quantization, respectively").

Regarding claim 31, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein, at a transition from said high-speed playback to said normal playback (Col 51, lines 42-43 "normal continuous playback or the like is inputted to the mode switcher 76 from the microcomputer"), but do not explicitly disclose a calculation for the acceleration and deceleration.

Suzuki teaches calculating an acceleration in accordance with time required to read out and decode said main track data (Col 7, lines 2-7 "the data is intermittently read out from the disc 113 by the predetermined amount in the normal reproduction mode. At the time of search reproduction, the data is continuously read out from the magneto-optical disc 113. In this manner, the data is reproduced at a rate several times higher than the rate in the normal reproduction mode") so as to perform deceleration at a deceleration corresponding to said calculated acceleration (Col 6, lines 42-50 "at the time of normal reproduction, the CPU 122 rearranges, in the order shown by reference numeral 301 in FIG. 3, the reproduced data decoded in the order indicated by reference numeral 302 in FIG. 3 and stored in the memory 205, and outputs the rearranged data. Thus, the order of reproduced image data is changed by using the memory 205 and, accordingly, the memory 205 is capable of storing several frames (ten frames in this embodiment) of decoded image data").

As taught by Suzuki, calculating an acceleration factor allows the reproducing device to determine the appropriate data reading rate for the high-speed reproduction, and to return to a normal reading rate when high-speed reproduction is completed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mishima et al in order to include a calculation of acceleration factor and to use that calculation for accelerated and normal playback transitions.

Regarding claim 33, Mishima et al disclose a reproducing device adapted to play back video data recorded on an information recording medium wherein said screen has a fixed arrangement when acceleration and deceleration are terminated so as to perform normal playback, said fixed arrangement being in accordance with said reproduction speed presently existing (Col 15, lines 13-16 " at the time of the normal playback, the data is rearranged on the basis of the address with the result that disadvantage resulting from the division of data can be prevented when played back").

Regarding claim 34, Mishima et al disclose a reproducing method for playing back video data recorded on an information recording medium, the method comprising the steps of:

- setting a reproduction speed of the video data (Col 37, line 36 "special playback is performed"), said reproduction speed during a high-speed playback being higher than said reproduction speed during a normal playback (Col 29, lines 54-55 "a 15 times speed special playback picture can be obtained");
- reading out said video data from the information recording medium (Col 27, lines 53-55 "video information read from the recording medium is inputted

from an input terminal 20 to a demodulator 21"), said video data including main track data being read out during said normal playback and low resolution data being read out during said high-speed playback (Col 20, lines 39-43 "At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution");

- wherein an output image from said video data is viewable on said screen (Col 33, lines 38-40 "the data which can be read is decoded in units of macroblocks and is outputted as a high speed playback picture").

Mishima et al also disclose

- calculating an acceleration in accordance with time required to read out and decode said low resolution data, said acceleration being calculated at a transition from said normal playback to said high-speed playback (Col 16, lines 60-64 "at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback"); and
- performing acceleration at said calculated acceleration (Col 17, lines 3-5 "regarding the data divided by a plurality of dividing means, the amount of data to be read can be adjusted in accordance with the special playback speed to cope with a wide scope of the special playback speed").

Mishima et al further disclose the screen divided into a number of areas (Col 37, lines 44-47 'the P4 picture is played back in the area 1, the P3 picture is played back in the area 2, the P2 picture is played back in the area 3, and the P1 picture is played back in the area 4 and the I picture in the area 5"), but does not explicitly disclose the number during high-speed playback being variable in accordance with said reproduction speed.

Suzuki teaches a reproducing device adapted to play back video data recorded on an information recording medium wherein the screen is divided into a number of areas during high-speed playback, that number being variable in accordance with the reproduction speed (Col 9, lines 21-24 "the ability of the recording and reproducing system and the memory capacity may be changed as desired to perform search reproduction at a speed other than the above-mentioned speed" and Col 9, lines 28-32 "each of successive ten frames stored in the memory is divided into ten regions, and respective portions of the ten frames of reproduced image data are combined to form one frame of image data for tenfold-speed search").

As taught by Suzuki, a screen being divided into a number of areas during high-speed playback, the number being variable in accordance with the reproduction speed, is well known, and provides the user with a visual indication of both the frames being played at high speed, and of the rate of reproduction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mishima et al in order to include a variable number of

areas being displayed during high-speed reproduction in accordance with the reproduction speed.

Regarding claim 35, Mishima et al disclose a method for playing back video data recorded on an information recording medium comprising partially displaying different frames of said low resolution data within each of said areas (Col 37, lines 44-47 “the P4 picture is played back in the area 1, the P3 picture is played back in the area 2, the P2 picture is played back in the area 3, and the P1 picture is played back in the area 4 and the I picture in the area 5”).

Regarding claim 36, Mishima et al disclose a method for playing back video data recorded on an information recording medium comprising: displaying a frame of said main track data during said normal playback, said screen during said normal playback being a single area (Col 15, lines 13-16 “at the time of the normal playback, the data is rearranged on the basis of the address with the result that disadvantage resulting from the division of data can be prevented when played back”).

Regarding claim 37, Mishima et al disclose a method for playing back video data recorded on an information recording medium comprising: setting said reproduction speed at a predetermined acceleration (Col 16, lines 60-64 “at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback”).

Regarding claim 38, Mishima et al disclose a method for playing back video data recorded on an information recording medium wherein, within the step of reading

out said video data, said video data is read out at said reproduction speed (Col 16, lines 60-64 “at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback”).

Regarding claim 39, Mishima et al disclose a method for playing back video data recorded on an information recording medium wherein a time period to decode said low resolution data is shorter than a time period to decode said main track data (Col 55, lines 25-29 “when only the low resolution component is arranged in summary at the front of the GOP, the ratio of the L component occupying the whole largely reduces so that an allowance can be made in the reading speed from the medium so that the skip search can be easily realized”).

Regarding claim 40, Mishima et al disclose a method for playing back video data recorded on an information recording medium wherein said main track data and said low resolution data are on said information recording medium (Col 1, lines 14-16 “a digital video signal record and playback device for recording and playing back on a medium such as an optical disc”).

Regarding claim 41, Mishima et al disclose a method for playing back video data recorded on an information recording medium wherein said main track data and said low resolution data are intermittently recorded on a physically same track of said information recording medium (Col 55, lines 11-20 “FIG. 65 is a view showing an example of the result of data constitution… In the sequence c, symbol C denotes a component coded by a rough quantization, and A a residual component by the rough

quantization, respectively" and Col 70, line 66 – Col 71, line 4 "The video bitstream is extracted and inputted to the multiplexer 142. The multiplexer 142 sends the low resolution component data to the second variable-length decoder 145 while sending other data items to the first variable-length decoder 144 via the switch 143").

Regarding claim 42, Mishima et al disclose a method for playing back video data recorded on an information recording medium comprising:

- calculating an acceleration in accordance with time required to read out and decode said main track data, said acceleration being calculated at a transition from said high-speed playback to said normal playback (Col 16, lines 60-64 "at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback").

Suzuki teaches calculating an acceleration in accordance with time required to read out and decode said main track data (Col 7, lines 2-7 "the data is intermittently read out from the disc 113 by the predetermined amount in the normal reproduction mode. At the time of search reproduction, the data is continuously read out from the magneto-optical disc 113. In this manner, the data is reproduced at a rate several times higher than the rate in the normal reproduction mode") so as to perform deceleration at a deceleration corresponding to said calculated acceleration (Col 6, lines 42-50 "at the time of normal reproduction, the CPU 122 rearranges, in the order shown by reference numeral 301 in FIG. 3, the reproduced data decoded in the order indicated by reference numeral 302 in FIG. 3 and stored in the memory 205, and outputs the rearranged data.

Thus, the order of reproduced image data is changed by using the memory 205 and, accordingly, the memory 205 is capable of storing several frames (ten frames in this embodiment) of decoded image data").

As taught by Suzuki, calculating an acceleration factor allows the reproducing device to determine the appropriate data reading rate for the high-speed reproduction, and to return to a normal reading rate when high-speed reproduction is completed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mishima et al in order to include a calculation of acceleration factor and to use that calculation for accelerated and normal playback transitions.

Regarding claim 44, Mishima et al disclose a method for playing back video data recorded on an information recording medium comprising:

- fixing an arrangement of said screen upon termination of acceleration and deceleration (Col 15, lines 13-16 " at the time of the normal playback, the data is rearranged on the basis of the address with the result that disadvantage resulting from the division of data can be prevented when played back"), said fixed arrangement being in accordance with said reproduction speed presently existing (Col 15, lines 13-16 " at the time of the normal playback, the data is rearranged on the basis of the address with the result that disadvantage resulting from the division of data can be prevented when played back"); and

- performing said normal playback (Col 15, lines 13-16 " at the time of the normal playback, the data is rearranged on the basis of the address with the result that disadvantage resulting from the division of data can be prevented when played back").

Regarding claim 45, Mishima et al disclose a recording medium on which a program readable by a computer is recorded, the program being for playing back video data recorded on an information recording medium, the program comprising the steps of:

- setting a reproduction speed of the video data (Col 37, line 36 "special playback is performed"), said reproduction speed during a high-speed playback being higher than said reproduction speed during a normal playback (Col 29, lines 54-55 "a 15 times speed special playback picture can be obtained");
- reading out said video data from the information recording medium (Col 27, lines 53-55 "video information read from the recording medium is inputted from an input terminal 20 to a demodulator 21"), said video data including main track data being read out during said normal playback and low resolution data being read out during said high-speed playback (Col 20, lines 39-43 "At the time of the special playback, a decoding mode is switched over in accordance with the operating state of the device so that a rough picture can be decoded by decoding only the coded data of low resolution"); and

- wherein an output image from said video data is viewable on said screen (Col 33, lines 38-40 "the data which can be read is decoded in units of macroblocks and is outputted as a high speed playback picture").

Mishima et al also disclose:

- calculating an acceleration in accordance with time required to read out and decode said low resolution data, said acceleration being calculated at a transition from said normal playback to said high-speed playback (Col 16, lines 60-64 "at the time of the special playback, the data to be accessed decreases so that a smooth special playback can be obtained by gradually decreasing the data amount to be accessed at the time of the special playback"); and
- performing acceleration at said calculated acceleration (Col 17, lines 3-5 "regarding the data divided by a plurality of dividing means, the amount of data to be read can be adjusted in accordance with the special playback speed to cope with a wide scope of the special playback speed").

Further, Mishima et al also disclose the screen divided into a number of areas (Col 37, lines 44-47 'the P4 picture is played back in the area 1, the P3 picture is played back in the area 2, the P2 picture is played back in the area 3, and the P1 picture is played back in the area 4 and the I picture in the area 5"), but does not explicitly disclose the number during high-speed playback being variable in accordance with said reproduction speed.

Suzuki teaches a reproducing device adapted to play back video data recorded on an information recording medium wherein the screen is divided into a number of areas during high-speed playback, that number being variable in accordance with the reproduction speed (Col 9, lines 21-24 "the ability of the recording and reproducing system and the memory capacity may be changed as desired to perform search reproduction at a speed other than the above-mentioned speed" and Col 9, lines 28-32 "each of successive ten frames stored in the memory is divided into ten regions, and respective portions of the ten frames of reproduced image data are combined to form one frame of image data for tenfold-speed search").

As taught by Suzuki, a screen being divided into a number of areas during high-speed playback, the number being variable in accordance with the reproduction speed, is well known, and provides the user with a visual indication of both the frames being played at high speed, and of the rate of reproduction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mishima et al in order to include a variable number of areas being displayed during high-speed reproduction in accordance with the reproduction speed.

(10) Response to Argument

A. Claim 18

On pages 8-9, Appellant asserts, **1. U.S. Patent No. 6,009,236 (Mishima) fa//s to disclose reproducing device wherein, at a transition from said high-speed**

playback to said normal playback, an acceleration in accordance with time required to read out and decode said main track data is calculated so as to perform deceleration at a deceleration corresponding to said calculated acceleration.

This argument is moot since Mishima is not relied upon to teach such features.

On page 9, Appellant asserts, **2. U.S. Patent No. 7,058,280 (Suzuki) fa//s to disclose reproducing device wherein, at a transition from said high-speed playback to said normal playback, an acceleration in accordance with time required to read out and decode said main track data is calculated so as to perform deceleration at a deceleration corresponding to said calculated acceleration.**

In response, Examiner respectfully disagrees for the reasons set forth below.

On pages 9-11, Appellant argues that: (a) Suzuki fails to disclose a transition from high-speed playback to normal playback, (b) a calculation, and (c) an acceleration in accordance with time required to read out and decode said main track data is calculated so as to perform deceleration at a deceleration corresponding to said calculated acceleration.

In response, Examiner respectfully disagrees for the reasons set forth in the Office Action dated 11/13/2009. Specifically, Suzuki states, at least in column 6, lines 42-50,

"at the time of normal reproduction, the CPU 122 rearranges, in the order shown by reference numeral 301 in by reference numeral 302 in FIG. 3 and stored in the order

of reproduced image data is changed by using the memory 205 and, accordingly, the memory 205 is capable of storing several frames (ten frames in this embodiment) of the decoded image data,"

and at least in column 7, lines 2-21,

"the data is intermittently read out from the disc 113 by the predetermined amount in the normal reproduction mode. At the time of search reproduction, the data is continuously read out from the magneto-optical disc 113. In this manner, the data is reproduced at a rate several times higher than the rate in the normal reproduction mode.

That is, referring to FIG. 2, when the search reproduction key of the operation switch 123 is operated for instruction to perform the operation in the search reproduction mode, the CPU 122 controls the reproducing circuit 201 to reproduce data at a speed several times higher, five times higher in this embodiment than the speed in the normal reproduction mode, and to output the reproduced data to the error correcting circuit 203 via the buffer 202. The reproducing system 200 is capable of processing reproduced data at a speed five times higher than the speed in the normal reproduction mode, and the decoding circuit 204 decodes all the data reproduced at the speed five times higher than the speed in the normal reproduction mode and outputs the decoded data to the memory 205."

Further, Suzuki also discloses whether the reproducing system operates in normal reproduction mode (normal speed reproduction mode) and search reproduction mode (high speed reproduction mode) is in response to users operating on an

instruction key (see at least column 5, lines 55-61 and column 7, lines 8-21). It is noted that the described search reproduction mode is a high speed reproduction mode because the frames are read, decoded, and outputted as described at least in column 7, lines 8-21, 50-56 and column 8, lines 17-25. As such, when user issues an instruction to perform a normal reproduction mode, the device operates in normal speed reproduction mode. And then, after that, if the user issues an instruction to perform search reproduction mode, the device operates in high speed reproduction mode, a process of switching between normal reproduction mode and search reproduction mode will be executed in accordance to user's instructions during reproduction, and is therefore a transition.

Also, at least in the text quoted above, Suzuki teaches at least two states of reproducing data: normal reproduction mode and 5x speed reproduction mode. These two reproduction modes are different at least in following aspects: speed of reading out the data from the optical disc, the number of frames to be decoded and outputted per a unit of time, thus different set of frames to be reproduced and decoded.

As such, switching between these two reproduction modes requires predetermined processes to be performed by the system involving different calculations or computing on the side of the processor. For example, if going from a high-speed reproduction to normal reproduction, a calculation must be involved (because the task of ordering, rearranging, and determining how many frames should be outputted per a unit of time requires processing as described in the quoted passage of Suzuki) to achieve a deceleration to reproduction at normal speed. In the embodiment described in

the underlined text above, Suzuki explicitly illustrates a scenario when a speed of five times higher than normal reproduction speed is performed. Without a calculation as asserted by Appellant, at least the questions of how the system controls a disc controller to read out such a predetermined amount of data per unit of time, how the system controls the decoder to decode such a predetermined number of frames per unit of time, and how the system controls to combine such a predetermined number of frames to be combined into an image screen with such a predetermined number of regions can only be answered by asserting that, "all that can be performed without any means to perform them". And that is an unacceptable answer.

Further, as described above, such accelerations and decelerations are calculated per unit of time, as such, it is in accordance with time required to perform the calculated process of transition.

As such, Examiner respectfully submits that Appellant's arguments are not persuasive.

3. Combination of Mishima and Suzuki

On pages 14-16, Appellant argues that Mishima teaches away from Suzuki by equating the teachings of Suzuki with what Mishima calls conventional or prior art. Appellant then argues that, as such, according to Mishima, such a prior art teachings expose undesired features. Therefore, it is discouraging to incorporate such undesired features into Mishima.

In response, Examiner respectfully disagrees and submits that Appellant, first of all, has mischaracterized Mishima and Suzuki at least over what Appellant presented in his arguments.

Specifically, Appellant quotes column 11, lines 28-43 where Mishima teaches some disadvantages of prior art. However, Appellant fails to show how Suzuki teachings expose these undesired features. In fact, using only Fig. 7 of Mishima, which is discussed in column 3, lines 42-51 to imply that what is taught by Suzuki is prior art of Mishima exposes a huge gap on the side of Appellant's arguments. Examiner respectfully submits that, with respect to Mishima reference, discussion of Fig. 7 is not in column 11, lines 28-43 as Appellant quoted (which simply is a statement about disadvantages of some prior art in general). For example, in column 11, lines 28-43, Mishima specifically teaches that on a skip search, "a perfect playback picture cannot be obtained in the case where the data is played back which does not allow obtaining a complete original picture from one picture data item like the B picture…".

Examiner respectfully submits that at least Appellant fails to point out where in Suzuki teachings, the data being played back "does not allow obtaining a complete original picture from one picture data item like the B picture" as Mishima characterized his prior art.

Secondly, Fig. 3 of Suzuki which is similar to Fig. 7 of Mishima, which is labeled as prior art, is an order of presenting images in normal reproduction mode (see column 6, lines 42-50 of Suzuki). In normal reproduction mode, the order of presenting frames of images in both Mishima and Suzuki must be the same. In other words, given the

same stream, in normal reproduction mode, both Mishima and Suzuki must present these images in the same order as shown in the output sequence of Fig. 3 of Suzuki. For example, if a movie has scene 1, scene 2, and scene 3, each of which comprises a plurality of frames having a determined sequence of presentation, in normal reproduction mode, both Suzuki and Mishima must successfully presenting the frames in each scene in the same order, one after another to give the same content. Otherwise, it is not a normal reproduction.

As such, Appellant's analysis of Mishima and Suzuki is erred.

B. Claims 23-33.

1. Arguments incorporated by reference.

Examiner respectfully submits that where relevant, the arguments with respect to claim 18 are incorporated by reference.

2. US Patent No. 6, 009, 236 (Mishima).

Appellant's assertion a) as presented in the Appeal Brief is moot since Mishima is not relied to teach those features.

On page 18, Appellant asserts that, **b) Mishima fails to disclose, teach, or suggest a reproducing device wherein, at a transition from said normal playback to said high-speed playback, an acceleration in accordance with time required to read out and decode said low resolution data is calculated so as to perform acceleration at said calculated acceleration.**

In response, Examiner respectfully disagrees for the reasons set forth below.

On pages 18-19, Appellant argues that the Final Office Action contracted itself by asserting Mishima discloses the feature of "wherein, at a transition from said normal playback to said high-speed playback, an acceleration in accordance with time required to read out and decode said low resolution data is calculated so as to perform acceleration at said calculated acceleration" on page 7 while admitting that Mishima does not disclose a calculation for the acceleration and deceleration as stated on page 5.

In response, Examiner respectfully disagrees and submits that the statement on page 5 is made with respect to the feature of "at a transition from high speed playback to normal speed playback" recited in claim 18 while claim 23 recites a different feature, which is about "a transition from normal speed playback to high speed playback."

A detailed transition from high speed playback to normal speed playback is disclosed in Suzuki as discussed above while a transition from normal speed playback to high speed playback has been sufficiently detailed in Mishima. These are different features necessitating different ground of rejections as appropriate.

As such, the Office Action does not contradict itself as argued by Appellant.

On page 19, Appellant argues that, "Mishima fails to disclose, teach, or suggest a reproducing device wherein, at a transition from said normal playback to said high-speed playback, an acceleration in accordance with time required to read out and decode said low resolution data is calculated so as to perform acceleration at said calculated acceleration."

In response, Examiner respectfully disagrees. In column 16, lines 60-64, Mishima describes a process of acceleration, which involves calculation of amount of data to be accessed or read out (per unit of time that accommodates the specific speed of reproduction, for example, a double speed playback as described in column 23, lines 20-25 or fifteen time speed as described in column 29, lines 45-55). Further, given a unit of time to play back a given amount of data, the high speed playback also involves only the decoding of low resolution data as described in column 20, lines 39-43.

As such, Mishima clearly discloses the feature of "wherein, at a transition from said normal playback to said high-speed playback, an acceleration in accordance with time required to read out and decode said low resolution data is calculated so as to perform acceleration at said calculated acceleration."

3. U.S. Patent No. 7,058,280 (Suzuki).

On page 20, Appellant asserts that a) Suzuki fails to disclose, teach, or suggest a reproducing device wherein, at a transition from said normal playback to said high-speed playback, an acceleration in accordance with time required to read out and decode said low resolution data is calculated so as to perform acceleration at said calculated acceleration.

First of all, Examiner respectfully disagrees for the same reason as discussed in claim 18 above and secondly further submits that Suzuki is not relied upon to disclose that feature.

C. Claims 34-45.

1. Claims 34-44.

Appellant does not provide any arguments and Examiner has no further comment.

2. Claim 45.

Appellant's arguments described on pages 22-23 under **sections 3, 4, and 5** with respect to claim 45 are not persuasive for the same reasons as discussed in claim 23 above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Hung Q Dang/

Examiner, Art Unit 2621

Conferees:

/Thai Tran/

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